

10/009792

SEQUENCE LISTING

<110> Korea Advanced Institute of Science and Technology

<120> E coli Secreting Human
Granulocyte Colony Stimulating Factor (hG-CSF)

<130> P0132/KAIST/PCT

<150> KR 2000-0017052

<151> 2000-03-31

<160> 27

<170> KopatentIn 1.71

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<212> PRT

<213> Artificial Sequence

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<223> oligopeptide

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<212> DNA

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<211> 507
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 agcttcctgc tcaagtgc tt agagcaagt g aggaagatcc agggcgatgg cgca g c g c t c 180
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 ctccctgcagg ccctggaagg gatctcccc gagttggc ccaccttgg a c a c t g c a g 300
 ctggacgtcg ccgactttgc caccaccatc tggcagcaga t g g a a g a a c t g g a a t g g c c 360
 cctgccc tgc agccaccca g g g t g c c a t g c c g c t c c t c t g c t t t c c a g c g c c g g 420
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 agcttcctgc tcaagtgc tt agagcaagt g aggaagatcc agggcgatgg cgca g c g c t c 180
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 gactttgcca ccaccatctg gcagcagatg gaagaactgg gaatggcccc tgccctgcag 480
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Cys Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln
Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val
Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys
Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser
Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser
Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp
Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro
Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe
Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe
Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro

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cagatggaag aactggaaat ggccctgccc ctgcagccca cccagggtgc catgccggcc 420
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Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu

Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser

Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His

Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile

Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala

Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala

Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala

Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser

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Met Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu

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Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys

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His His His His Ile Glu Gly Arg Thr Pro Leu Gly Pro Ala Ser

Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys Leu Glu

SEQUENCE LISTING

<110> Korea Advanced Institute of Science and Technology

5 <120> E coli Secreting Human
Granulocyte Colony Stimulating Factor (hG-CSF)

<130> P0132/KAIST/PCT

10 <150> KR 2000-0017052
<151> 2000-03-31

<160> 27

15 <170> KopatentIn 1.71

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20 <213> Artificial Sequence

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<400> 1

Ala Gly Pro His His His His His His Ile Glu Gly Arg

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<210> 2

<211> 29

<212> DNA

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<223> primer

<400> 2

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<210> 3

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10 <212> DNA

<213> Artificial Sequence

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DNA

Artificial Sequence

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20 Artificial Sequence

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Artificial Sequence

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primer

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DNA

10 Artificial Sequence

220

primer

15

14

g c g a a t t c t t t a a a t t a g a a a a a c t c a t c g a g c a t c

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20 15

39

DNA

Artificial Sequence

25 220

primer

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35 DNA

Artificial Sequence

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<213> Homo sapiens

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20 agcttcctgc tcaagtgcct agagcaagtg aggaagatcc agggcgatgg cgcagcgctc 180

caggagaagc tggcaggctg cttgagccaa ctccatagcg gcctttcct ctaccagggg 240

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25 ctggacgtcg ccgactttgc caccaccatc tggcagcaga tggagaact ggaaatggcc 360

cctgccctgc agcccaccca gggtgccatg ccggccttcg cctctgcttt ccagcgccgg 420

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<213> Homo sapiens

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20 cccacccagg gtgccatgcc ggccttcgcc tctgcttcc agcgccgggc aggaggggtc 540
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<210> 19

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30 <212> PRT

<213> Homo sapiens

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20 25 30

Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val

5 35 40 45

Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys

50 55 60

10 Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser

65 70 75 80

Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser

85 90 95

15

Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp

100 105 110

Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro

20 115 120 125

Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe

130 135 140

25 Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe

145 150 155 160

Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro

165 170

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<210> 20

<211> 531

<212> DNA

35 <213> Homo sapiens

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ccctgagca gctgccccag ccaggccctg cagctggcag gctgcttgag ccaactccat 240

10 agcggccttt tcctctacca ggggctcctg caggccctgg aaggatctc ccccgagttg 300

ggtcccacct tggacacact gcagctggac gtcgccgact ttgccaccac catctggcag 360

cagatggaag aactggaaat ggcccctgcc ctgcagccca cccagggtgc catgccggcc 420

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20 25 30

Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu

35 40 45

35 Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser

11

50

55

60

Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His

65

70

75

80

5

Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile

85

90

95

Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala

10

100

105

110

Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala

115

120

125

15

Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala

130

135

140

Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser

145

150

155

160

20

Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro

165

170

175

25

<210> 22

<211> 45

<212> DNA

<213> Homo sapiens

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<212> PRT

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<213> Homo sapiens

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<210> 24

<211> 135

10 <212> DNA

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ttcctgctca agtgc

135

20

<210> 25

<211> 45

<212> PRT

<213> Homo sapiens

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<400> 25

Met Phe Lys Phe Lys Lys Lys Phe Leu Val Gly Leu Thr Ala Ala Phe

1 5 10 15

30 Met Ser Ile Ser Met Phe Ser Ala Thr Ala Ser Ala Thr Pro Leu Gly

20 25 30

Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys

35 40 45

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<210> 26
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aggactccgt taggtccagc cagctccctg ccccagagct tcctgctcaa gtgcttagag 180

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<212> PRT
<213> Homo sapiens

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1 5 10 15

Met Ser Ile Ser Met Phe Ser Ala Thr Ala Ser Ala Ala Gly Pro His
20 25 30

25 His His His His Ile Glu Gly Arg Thr Pro Leu Gly Pro Ala Ser
35 40 45

30 Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys Leu Glu
50 55 60